

## HYDROPHILUS IN SALT WATER

On November 18, 1949 while walking along a long wharf projecting out into the greyish-green waters of Aransas Bay on the south Texas Coast, the writer saw a large, fresh-water beetle swimming slowly along near the surface about 100 yards from shore. It appeared to be one and one-half to two inches long and the color was shiny black. Since the slow motion led to the suspicion that the insect was not at ease or was possibly moribund in the marine environment, an attempt was made to capture it with a small stick. This effort caused it to dive out of sight quickly and agilely, so that doubts of its well-being were quickly dissipated. It was not seen again.

The simple process of exclusion leaves little doubt as to the generic classification of the insect. By appearance and size it could only have been a member of Dytiscidæ or Hydrophilidæ. However, no *Dytiscus* in Texas attain such large size and the animal must have belonged to the Hydrophilidæ. Members of the genus *Hydrocharis* of that family are known to enter brackish pools, but again smaller size excludes them, and indicates *Hydrophilus* as the proper genus.

It is well known that insects in salt water are uncommon and none seem to be completely adapted except the strider, *Halobates*, of the high seas. In some twenty years of observation on bays on the Gulf Coast the writer has seen no diving beetles in salt water, although corixids are occasionally taken in water which is barely brackish near river mouths. Furthermore, no record of *Hydrophilus* in the marine environment has been seen. The salinity where the specimen was seen, was determined to be 22.0 per mille, which is about 63.0 per cent of full sea water. It should be added that numerous rains had preceded the time of this observation and the presence of numerous ponds on shore lead to the conclusion that the sea-going *Hydrophilus* was not forced into salt water by drouth or lack of the normal habitat.—G. GUNTER, Institute of Marine Science, The University of Texas, Port Aransas, Texas.